



HM Digital, Inc. is your premier source for the finest quality water testing instrumentation. From our facilities in Los Angeles, Seoul and Qingdao, HM Digital ships to anywhere in the world.

Our handheld meters, in-line monitors, controllers, sensors and calibration solutions, used in a myriad of applications, are superior in quality, features and performance, yet made available at a very economic cost. HM Digital takes pride not only in the quality of our products, but also in our commitment to customer service and the shortest lead times in the industry.

With HM Digital water testing instruments, you're on your way to the perfect water.



water testing instruments

Testing Instruments for Professional and Personal Use

ORP

TDS

pH



Agriculture

Alternative Health

Aquariums & Aquaculture

Car & Window Washing

Carbon Filtration

Deionization

Distillation

Food & Coffee Service

Hydroponics

Pools & Spas

Pharmaceutical & Medical

Reverse Osmosis

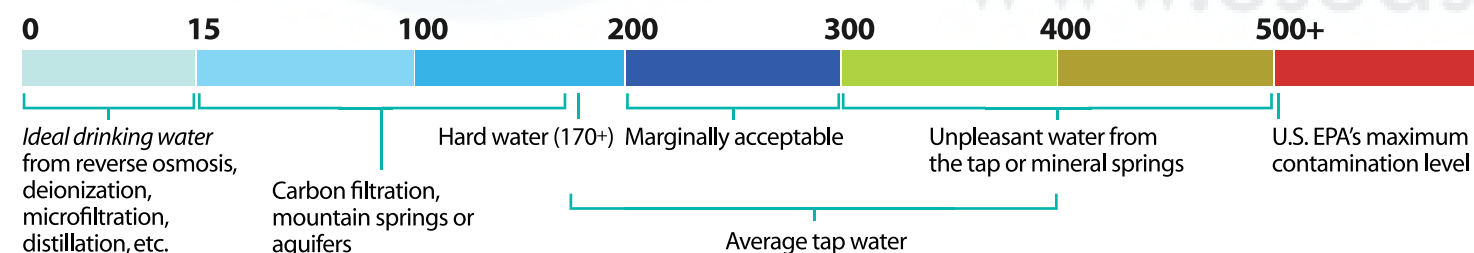
Water Bottling

Water Purification

Water Treatment

RECOMMENDED TDS LEVELS FOR DRINKING WATER

TDS in parts per million (PPM)



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to the*
PERFECT
water®



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Conductivity

Temperature

General Catalog 2013

Handhelds: TDS/EC

Handhelds: TDS/EC

	ZT-2	TDS-EZ	TDS-3 / EC-3		TDS-4
					
	• Retail economy model • Reliable meter at an unbeatable price • Auto shut-off • New "HMD" line	• Economy model ideal for end-users • Fun, translucent blue housing • Excellent as a promotional item • Includes a TDS chart on the back of the meter • Auto shut-off	• Ideal for commercial use, with vinyl carrying case and belt clip • Includes digital thermometer • Hold function stores readings outside of the water; Auto-off function conserves battery power • Large, easy-to-read display • Strong, durable plastic		• The smallest and lightest TDS meter on the market • Sleek pocket design is perfect for personal or consumer use • Includes hold function, auto-off function, ATC, large display, and factory calibration • Advanced microprocessor technology
TDS/EC RANGE	0-999 ppm (mg/L)	0-9990 ppm (mg/L)	0-9990 ppm (mg/L)	0-9990 µS (µS/cm)	0-9990 ppm (mg/L)
TEMP. RANGE	n/a	n/a	1-80°C		n/a
ATC	Yes	n/a	Yes		Yes
ACCURACY	+/- 3%	+/- 3%	+/- 2%		+/- 2%
RESOLUTION	1 ppm	1 ppm	1 ppm	1 µS	1 ppm
CALIBRATION	Analog to any point	Analog to any point	Analog to any point		Analog to any point
POWER SOURCE	2 x 1.5V button cell	2 x 1.5V button cell	2 x 1.5V button cell		2 x 1.5V button cell
DIMENSIONS	14 x 2.3 x 1.5 cm (5.5 x .9 x .75 in.)	15.5 x 3.1 x 2.3 cm (6.1 x 1.25 x 1 in.)	15.5 x 3.1 x 2.3 cm (6.1 x 1.25 x 1 in.)		14 x 2.3 x 1.5 cm (5.5 x .9 x .55 in.)
WEIGHT	31.2 g (1.1 oz)	56.7 g (2 oz)	76.5 g (2.7 oz) (with case)		34 g (1.2 oz)
					

	TDS-4TMA	AP-1: AquaPro	AP-2: AquaPro	COM-80	COM-100
					
	• The smallest and lightest TDS meter on the market • Sleek pocket design is perfect for personal or consumer use • Includes hold function, auto-off function, ATC, large display, and factory calibration • Advanced microprocessor technology • Aquarium retail package	• Upscale retail TDS meter • Modern, splashproof design • Large LCD and digital calibration • Includes a TDS chart on the back of the meter and a magnetic housing • Four-digit display	• Upscale retail EC meter • Modern, splashproof design • Large LCD and digital calibration • Includes an EC chart on the back of the meter and a magnetic housing • Four-digit display	• EC/TDS HydroTester • Water resistant body • Large LCD and digital calibration • Ideal for hydroponics and indoor gardening • Four scales, easily selected by user	• Professional waterproof EC/TDS meter • Three EC-to-TDS conversion factors • Four scales: µS, mS, ppm, ppt • Pinpoint accuracy: resolution of 0.1 • Digital calibration and replaceable electrode
TDS/EC RANGE	0-9990 ppm (mg/L)	0-5000 ppm (mg/L)	0-9999 µS (µS/cm)	0-9999/9.9 µS/mS; 0-5000/5.0 ppm/ppt	0-9990/9.99 µS/mS; 0-8560/8.56 ppm/ppt
TEMP. RANGE	1-80°C	1-80°C / 33-176°F	1-80°C / 33-176°F	1-80°C / 33-176°F	1-80°C / 33-176°F
ATC	Yes	Yes	Yes	Yes	Yes
ACCURACY	+/- 2%	+/- 2%	+/- 2%	+/- 2%	+/- 2%
RESOLUTION	1 ppm	1 ppm	1 µS	1 µS; 0.1 mS; 1 ppm; 0.1 ppt	0.1 µS; 0.01 mS; 0.1 ppm; 0.01 ppt
CALIBRATION	Analog to any point	Digital to any point	Digital to any point	Digital to any point	Digital to any point
POWER SOURCE	2 x 1.5V button cell	1 x 3V button cell	1 x 3V button cell	3 x 1.5V button cell	3 x 1.5V button cell
DIMENSIONS	14 x 2.3 x 1.5 cm (5.5 x .9 x .55 in.)	15 x 2.8 x 1.3 cm (5.9 x 1.1 x .5 in.)	15 x 2.8 x 1.3 cm (5.9 x 1.1 x .5 in.)	15.3 x 3.2 x 1.8 cm (6 x 1.3 x .7 in.)	18.5 x 3.4 x 3.4 cm (7.3 x 1.3 x 1.3 in.)
WEIGHT	34 g (1.2 oz)	42.5 g (1.5 oz)	42.5 g (1.5 oz)	53.9 g (1.9 oz)	90.7 g (3.2 oz)
					

The most popular
handheld TDS testers
in the world



What is TDS?

Total Dissolved Solids (TDS) are the total amount of mobile charged ions, including minerals, salts or metals dissolved in a given volume of water. TDS is expressed in parts per million (ppm) or milligrams per liter (mg/L). TDS includes any inorganic element present other than the pure water molecule (H₂O) and suspended solids. TDS meters are based on Electrical Conductivity (EC).

TDS affects everything that consumes, lives in, or uses water, whether organic or inorganic. While humans prefer low TDS in their drinking water, many species, such as plants and fish, need significantly higher levels. From drinking water to aquarium water or pipes to glass cleaners, it is always crucial to test for TDS or EC to ensure that the water is right for the application.

The U.S. EPA's Maximum Contaminant Level of TDS for human consumption is 500 ppm (mg/L).

Handhelds: pH and ORP

	PH-80	PH-200	ORP-200
			
	• Low-cost pH tester • Auto calibration • Modern design • Large LCD display • Splashproof housing • Automatic Temperature Compensation (ATC) • Auto-off, data hold & low battery indicator functions • On-screen temperature reading • Factory calibrated to pH 7.0 • Includes batteries, pH 7.0 buffer, and electrode storage solution	• Measures pH and Temperature • Auto-ranging single point calibration with digital fine tuning to any point • Includes electrode storage solution in cap • Large LCD display • Waterproof housing (IP67) • Automatic Temperature Compensation • Auto-off, data hold, low battery indicator and onscreen diagnostic functions • Replaceable sensor • Factory calibrated to pH 7.0 • Includes lanyard, batteries, pH 7.0 buffer powder packet and storage solution	• Measures ORP and Temperature • Digital calibration by push button • Platinum sensor and glass reference cell • Large LCD display • Waterproof housing (IP67) • Automatic Temperature Compensation • Auto-off, data hold & low battery indicator functions • Replaceable sensor • Factory calibrated to +200mV • Includes lanyard, batteries and extra storage solution
RANGE	0.0 - 14.0 pH	0.00 - 14.00 pH	-999 to +1000 mV
TEMP. RANGE	1-80°C (33-176°F)	1-80°C (33-176°F)	1-80°C (33-176°F)
RESOLUTION	0.1 pH; 0.1°C/F	0.01 pH; 0.1°C/F	1 mV; 0.1°C/F
ACCURACY	+/- 2%	+/- .02 pH	0.5% (+/- 2mV)
CALIBRATION	Automatic digital calibration to 4.0, 7.0 or 10.0	Auto-ranging to 4, 7 or 10 pH, digital fine tuning	Digital calibration by push button
ELECTRODE	Glass sensor and reference tube	Replaceable glass sensor and reference tube	Replaceable platinum sensor and glass ref. tube
HOUSING	Splashproof	Waterproof (IP67; floats)	Waterproof (IP67; floats)
POWER SOURCE	1 x 3V button cell batteries (included)	3 x 1.5V button cell (included)	3 x 1.5V button cell batteries (included)
DIMENSIONS	15.3 x 3.2 x 1.8 cm (6.0 x 1.3 x 0.7 in)	18.5 x 3.4 x 3.4 cm (7.3 x 1.3 x 1.3 in)	18.5 x 3.4 x 3.4 cm (7.3 x 1.3 x 1.3 in)
WEIGHT	53.9 g (1.9 oz)	96.4 g (3.4 oz)	96.4 g (3.4 oz)
			

What is ORP?

ORP (Oxidation Reduction Potential), or Redox, is a measurement of water's ability to oxidize contaminants.

The higher the ORP, the greater the number of oxidizing agents.

Handhelds: Temperature and Salt

	TM-1	SB-1000 (High Range Salt Meter)
		
	• Industrial grade digital thermometer • Heavy duty thermometer measures solids, liquids or gases • Long probe with extended cable • Includes convenient wallet-style carrying case	• Salt meter with measuring spoon (percentage of salt) • Ideal for pools, saltwater aquariums and food preparation • Extra wide range • Large LCD display - horizontal angle for easy viewing • Waterproof housing • Automatic Temperature Compensation
RANGE		0.0 - 10%; 0.0 - 100 ppt
TEMP. RANGE	-50 to 250°C (-58 to 482°F)	1 to 99°C (33 to 211°F)
RESOLUTION	0.1°C/F	0.1%; 0.1 ppt; Temperature resolution is 0.1°C/F
ACCURACY	± 1°C (-10 to 100°C), ± 2°C (101 to 200°C), ± 3°C (-50 to -10°C), ± 5°C (200 to 250°C)	+/- 0.1%; Temperature accuracy is +/- 1°C
CALIBRATION	Analog	Digital calibration by push button
ELECTRODE	6.35 cm (2-1/2") stainless steel probe with 50.8 cm (20") cable	Platinum electrodes in measuring spoon
HOUSING	Splashproof, enclosed in wallet-style case	Waterproof (submersible; floats)
POWER SOURCE	2 x 1.5V button cell batteries (included)	3 x 1.5V button cell batteries (included)
DIMENSIONS	5.4 x 10.8 x 1.2 cm (2.1 x 4.2 x .5 in)	18.5 x 3.4 x 3.4 cm (7.3 x 1.3 x 1.3 in)
WEIGHT	85.4 g (3 oz)	82.2 g (2.9 oz)

Tips For Better Water Testing

- Always consult the instruction manual prior to use.
- Always be sure an instrument is properly calibrated. ORP and pH meters need to be calibrated frequently. TDS and EC meters will retain their calibration longer.
- HM Digital meters are factory calibrated as a convenience for the customer. Recalibration may be required.
- Never touch a sensor pin, electrode or reference cell. Skin oils will affect readings.
- Always lightly swirl a meter in the water to dislodge any trapped air bubbles.
- There are many factors that affect water testing, such as water pressure and static electricity. Minor fluctuations or discrepancies in readings are normal.
- Never store an instrument in high heat or humidity.

Monitors

Monitors

QC-1	SM-1	DM-1	DM-2
Quick Check Monitor	Single TDS Monitor	Dual TDS Monitor	Dual TDS Monitor
			
• With the push of a button, the unit displays a green or red light, indicating good water quality or that service is required, respectively • Tests for TDS or conductivity levels • Eight programmable set points (by dip switch) • Bright LED lights • Installs quickly and easily. Simple to use • Comes equipped with 1/4" T-fitting (also available with 3/8" or 1/2")	• Displays the TDS level of a single water line • Works with the push of a button • Auto-off function conserves battery power; unit shuts off automatically after 10 minutes of non-use • Comes equipped with 1/4" T-fitting (also available with 3/8" or 1/2")	• Displays TDS levels of the feed water and product water with in & out sensors • A crucial device for any water filter system • Great instant check for system performance • Comes equipped with 1/4" T-fittings (also available with 3/8" or 1/2") • Installs in minutes	All the benefits of the DM-1, plus: • A large, easy-to-read LCD display • Splashproof housing • Shielded, water-resistant cables • Sliding bracket with variable mounting options • Sleek design • Longer sensor cables • Digital calibration
RANGE	0-5000 ppm (0-9999 µS)	0-9990 ppm	0-9990 ppm
ACCURACY	+/- 3%	+/- 2%	+/- 2%
RESOLUTION	n/a	0-999: 1 ppm; 1000-9990: 10 ppm	0-999: 1 ppm; 1000-9990: 10 ppm
ATC	n/a	Yes (1 - 65°C)	Yes (1 - 65°C)
CALIBRATION	Factory calibrated only	Analog to any point	Digital to any point
SET POINT	Eight options (max 50 ppm / 100µS)	n/a	n/a
ALARM	Red/green light (no audible alarm)	n/a	n/a
SENSOR	1/4" quick connect	1/4" quick connect	2 x 1/4" with quick connect
SENSOR CABLE LENGTH	62.2 cm (24.5") shielded cable	62.2 cm (24.5") shielded cable	116.8 cm (46") shielded cable
POWER SOURCE	4 x 1.5V button cell (LR44)	2 x 1.5V button cell (LR44)	2 x AA batteries
BATTERY LIFE	Approx. 1 year	Approx. 1,000 hours of usage	Approx. 750 hours of usage
DIMENSIONS	7.6 x 2 x 4.7 cm (3 x .8 x 1.9 in)	7.6 x 2 x 4.7 cm (3 x .8 x 1.9 in)	11.6 x 6.8 x 1.8 cm (4.6 x 2.6 x .7in)
WEIGHT	39.7 g (1.4 oz)	79.4 g (2.8 oz)	201.3 g (7.1 oz)

DM-2EC	TRM-1	PM-1 & PM-2	FM-2	BM-1
Dual EC Monitor	Triple TDS Monitor	Purity Monitor	Filter Monitor (Timer and Volumizer)	Bracket Monitor
				
An EC monitor with the benefits of the DM-1, plus: • A large, easy-to-read LCD display • Splashproof housing • Shielded, water-resistant cables • Sliding bracket with variable mounting options • Sleek design • Longer sensor cables • Digital calibration • Measures Electrical Conductivity	• Three-line TDS monitor • Ideal for multi-system applications, such as RO/DI • Displays TDS levels at three points, with three sensors • Comes equipped with 1/4" T-fittings (also available with 3/8" or 1/2") • Installs in minutes	• PM-1: OEM single line internal TDS monitor. • PM-2: External single line TDS monitor. • Includes a light and optional alarm that alerts the user service is required when the TDS level reaches the set-point • User-defined set points • Red or yellow warning lights • Audible alarm (steady beep)	• 5-stage filter monitor with 5 independent timers and volumizers • LED faucet indicator disc • Measures time and volume for up to 5 stages • Auto-off function conserves batteries • Timer counts down in months or days (programmable) • Volumizer counts up in gallons or liters (programmable) • Modern design is perfect for any kitchen	• Bracket monitor for DI systems • Mounts to a 2" diameter pole • Monitors TDS and month timer • Green light indicates OK • Yellow or red light and alarm will activate if TDS reaches the set point or timer elapses • Ideal for dental offices or other applications with pole-mounted systems • Also available without bracket (open circuit board)
0-9990 µS	0-9990 ppm	0-200 ppm	0-999 days/months; 0-99999 g/l	0-200 ppm; 3-12 months
+/- 2%	+/- 2%	+/- 2%	+/- 1% at typical pressure	+/- 2%
0-999: 1 µS; 1000-9990: 10 µS	0-999: 1 ppm; 1000-9990: 10 ppm	n/a	1 day/month; 1 gallon/liter	n/a
Yes (1 - 65°C)	Yes (1 - 65°C)	Yes (1 - 65°C)	n/a	Yes (1 - 65°C)
Digital to any point	Analog to any point	Factory calibrated only	n/a	Factory calibrated only
n/a	n/a	Set by dip switch	Fully programmable	Set by dip switch (TDS and months)
n/a	n/a	Lights and audible alarm	Steady beep	Tri-color light and audible alarm
2 x 1/4" quick connect	3 x 1/4" quick connect	1/4" quick connect	Flow sensor (1/4" quick connect)	1/4" quick connect
116.8 cm (46") shielded cable	62.2 cm (24.5")	62.86 cm (24.75") shielded cable	93 cm (36.6 in)	Customizable
2 x AA batteries	2 x 1.5V button cell (LR44)	AC 110V / 220V	2 x AA batteries	AC 110V / 220 V
Approx. 750 hours of usage	Approx. 1000 hours of usage	n/a	Approx. 18 months	n/a
11.6 x 6.8 x 1.8 cm (4.6 x 2.6 x .7in)	7.6 x 2 x 4.7 cm (3 x 0.8 x 1.9 in)	9.1 x 7.1 x 4 cm (3.6 x 2.8 x 1.6 in)	10 x 6.3 x 2.3 cm (4 x 2.5 x 0.9 in)	10.1 x 6.4 x 6.4 cm (4 x 2.5 x 2.5 in)
201.3 g (7.1 oz)	Approx. 88 g (9 oz)	275 g (9.7 oz)	119 g (4.2 oz) incl. batteries	Approx. 250 g (8.8 oz)

*Available late 2013



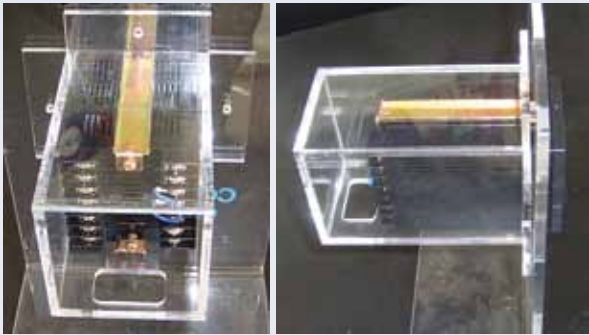
Controllers

Controllers

PS-100	PC-100	PS-200
		
ONE TDS LINE, SINGLE SCREEN • The fully adjustable relay control is set by the user to automatically stop a pump or valve if the TDS level rises above the setting • Stainless steel electrode • Includes all parts at no extra cost	ONE EC LINE, SINGLE SCREEN • The fully adjustable relay control is set by the user to automatically stop a pump or valve if the EC level rises above the setting • Stainless steel electrode • Includes all parts at no extra cost	TWO TDS LINES, SINGLE SCREEN • Monitors two lines, controls one • The fully adjustable relay control is set by the user to automatically stop a pump or valve if the TDS level rises above the setting • Stainless steel electrode • Includes all parts at no extra cost
0-999 ppm (mg/L)	0-999 μ S	0-999 ppm (mg/L)
+/- 2%	+/- 2%	+/- 2%
1 ppm	1 μ S	1 ppm
Yes (1 - 65°C)	Yes (1 - 65°C)	Yes (1 - 65°C)
Analog to any point	Analog to any point	Analog to any point
On-screen buttons	On-screen buttons	On-screen buttons
Simple switch, user-defined set point	Simple switch, user-defined set point	Simple switch, user-defined set point
Optional setting	Optional setting	Optional setting
Bright 5/8" L.E.D. display	Bright 5/8" L.E.D. display	Bright 5/8" L.E.D. display
1/2" NPTF, 3 m (9.8 ft.) cable	1/2" NPTF, 3 m (9.8 ft.) cable	1/2" NPTF, 3 m (9.8 ft.) cable
AC 110V / 220V	AC 110V / 220V	AC 110V / 220V
7.1 x 7.1 x 11.1 cm (2.8 x 2.8 x 4.4 in.)	7.2 x 7.2 x 10.2 cm (2.8 x 2.8 x 4 in.)	7.2 x 7.2 x 10.2 cm (2.8 x 2.8 x 4 in.)
453 g (1.0 lbs)	476 g (1.05 lbs)	476 g (1.05 lbs)

PS-202	PSC-150	PSC-154	CIC-152
			
TWO TDS LINES, DUAL DISPLAY - Ideal for commercial RO systems - Monitors and controls two lines simultaneously - Two fully adjustable relay controls are set by the user to automatically stop a pump or valve if the TDS levels rise above a setting - Stainless steel electrodes (2 sensors) - Includes all parts at no extra cost	ONE TDS/EC LINE, SINGLE SCREEN - Extended range for TDS and EC - On-screen temperature display - Digital calibration - The fully adjustable relay control is set by the user to automatically stop a pump or valve if the level rises above the setting - Stainless steel electrode - Includes all parts at no extra cost	ONE TDS/EC LINE, SINGLE SCREEN, 4-20mA OUTPUT - Extended range for TDS and EC 4-20mA output signal - On-screen temperature display - Digital calibration - The fully adjustable relay control is set by the user to automatically stop a pump or valve if the level rises above the setting - Stainless steel electrode - Includes all parts at no extra cost	ONE TDS/EC LINE, SINGLE SCREEN DUAL DOSING CONTROL - Extended range for TDS and EC - Two set points to control a range - Two alarms (max. and min.) - On-screen temperature display - Digital calibration - Upper limit and lower level set points to control two devices, such as a pump and solenoid valve - Stainless steel electrode - Includes all parts at no extra cost
0-999 ppm (mg/L)	0-5000 ppm (mg/L); 0-9999 μ S	0-5000 ppm (mg/L); 0-9999 μ S	0-5000 ppm (mg/L); 0-9999 μ S
+/- 2%	+/- 2%	+/- 2%	+/- 2% full scale
1 ppm	0-999: 0.1 ppm/ μ S; 1000-9999: 1 ppm/ μ S	0-999: 0.1 ppm/ μ S; 1000-9999: 1 ppm/ μ S	0-999: 0.1 ppm/ μ S; 1000-9999: 1 ppm/ μ S
Yes (1 - 65°C)	Yes (1 - 65°C)	Yes (1 - 65°C)	Yes (1 - 65°C)
Analog to any point	Digital to any point	Digital to any point	Digital to any point
On-screen buttons	On-screen buttons	On-screen buttons	On-screen buttons
Simple switch, user-defined set point	Simple switch, user-defined set point	Simple switch, user-defined set point	Two (upper limit and lower level)
Optional setting	Optional setting	Optional setting	Two independent alarms (max. and min.)
Bright 5/8" L.E.D. display	Bright, tri-color 5/8" L.E.D. display	Bright, tri-color 5/8" L.E.D. display	Bright, tri-color 5/8" L.E.D. display
2 x 1/2" NPTF, 3 m (9.8 ft.) cable	1/2" NPTF, 3 m (9.8 ft.) cable	1/2" NPTF, 3 m (9.8 ft.) cable	1/2" NPTF, 3 m (9.8 ft.) cable
AC 110V / 220V	AC 110V / 220V	AC 110V / 220V	AC 110V / 220V
9.4 x 9.4 x 12.5 cm (3.7 x 3.7 x 4.5 in.)	7.2 x 7.2 x 10.2 cm (2.8 x 2.8 x 4 in.)	7.2 x 7.2 x 10.2 cm (2.8 x 2.8 x 4 in.)	7.1 x 7.1 x 11.1 cm (2.8 x 2.8 x 4.4 in.)
569 g (1 lb 4.1 oz)	453 g (1.0 lbs)	453 g (1.0 lbs)	453 g (1.0 lbs)

Protective cover also available (model CC-1)



All HM Digital controllers include a TDS/EC sensor(s).

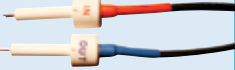
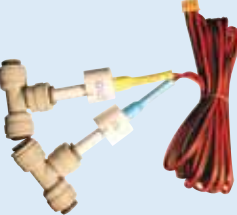
The *SP-1* sensor is compatible with:
PS-100, PS-200, PS-202, PC-100

The *SP-1-PSC* sensor is compatible with:
PSC-150, PSC-154, CIC-152

Throughout 2010, HM Digital will be upgrading the housing on all controllers but the PS-202. The new housing dimensions are 7.1 x 7.1 x 11.1 cm.



Sensors and Calibration

TDS/EC				
SP-1/SP-1-PSC	SP-2	SP-3	SP-4	SP-5
				
TDS/EC Sensor Probe for Panel Mounted Controllers • High quality, durable plastic construction • Stainless steel sensors • Probe: 1/2" threaded NPTF (detachable) • Cable: 3 meter (9.8 ft) shielded cable • Connector: 4-pin • Thermistor: Yes	Dual TDS Sensor Probes for DM-1 • Stainless steel sensors • Probe: 1/4" • Cable: 62.24 cm (24.5") • Connector: 8-pin • Thermistor: Yes • Sensors have blue or red wrap labeled IN or OUT	Dual TDS Sensor Probes for DM-2 • Stainless steel sensors • Probe: 1/4" • Cable: 114.3 cm (45") shielded • Connector: Dual 4-pin • Thermistor: Yes • Sensors have blue or red wrap labeled IN or OUT	Dual TDS Sensor Probes • Stainless steel sensors • Probe: 1/4" • Cable: 62.24 cm (24.5") • Connector: Dual 4-pin • Thermistor: No • Sensors have blue or red wrap labeled IN or OUT	Single TDS Sensor Probe • Stainless steel sensors • Probe: 1/4" • Cable: 114.3 cm (45") shielded • Connector: 4-pin • Thermistor: Yes • Sensors have unlabeled green wrap

Sensors and Calibration

Replacement Probes			Flow	
SP-C1	SP-P2	SP-O2	FMS-1	FMS-2
				
COM-100 Replacement Probe • Platinum sensors • Thermistor • Easy assembly • Meter must be calibrated after attaching new sensor	PH-200 Replacement Probe • Glass sensor and reference tube, thermistor • Includes storage solution • Easy assembly • Meter must be calibrated after attaching new sensor	ORP-200 Replacement Probe • Platinum sensor and glass reference tube, thermistor • Includes storage solution • Easy assembly • Meter must be calibrated after attaching new sensor	Water Flow Switch • Operates a device based on water flow with a simple switch • 1/4" quick-connect fittings • Modular connector plug • Durable design	Flow Sensor (Volumizer) • Turbine based sensor • Measures volume • 1/4" quick-connect fittings • Modular connector plug • Durable design

Calibration Solutions and Buffers: TDS, EC, pH, ORP

C-342/C-1000	PH-BUF	ORP-BUF
 • NaCl calibration solution • Available in 342 ppm or 1000 ppm • Comes in lightweight HDPE plastic bottles 3oz. (88.7 mL) • Sealed with a coated foam liner Solution Equivalents 342 NaCl = 362 as KCl; 478 as "442"; 700 μs 1000 NaCl = 1060 as KCl; 1450 as "442"; 2000 μs	 • Variety pack of pH buffer solution. • Powder has an indefinite shelf life. • Make only what you need, when you need it. SPECIFICATIONS • Total volume: 1.2 liters (100 ml per packet) • Contents: 3 packets of 4.0 pH, 6 packets of 7.0 pH, 3 packets of 10.01 pH • Includes 1 empty 100 ml bottle • Accuracy: +/- 0.02 pH at 25° C	 • Variety pack of ORP buffer solution. • Includes test kit to check the quality of your ORP electrode • Simple to use. SPECIFICATIONS • Total volume: 1.0 liters. (100 ml per packet) • Contents: 5 packets of +92 mV, 5 packets of +265 mV • Includes 3 x 100 ml bottles • Accuracy: +/- 0.2 ORP at 25° C

pH and ORP Electrode Storage Solutions are also available

About Calibration

A scientific instrument must be calibrated to achieve accurate testing results.

All HM Digital meters come factory calibrated and are ready to use out of the box in most instances. They are designed to stay consistent and retain their calibration. However, factory calibration is done as a convenience for the user, and there will be times when it is necessary to recalibrate a meter. A pH or ORP meter should be calibrated regularly, while a TDS or EC meter will retain its calibration for a considerably longer time. Additionally, calibration changes may occur during shipping or as a result of improper care. Always consult the instructions for a specific meter regarding calibration. The only way to determine if a meter has been calibrated properly is to check it against a laboratory-certified calibration solution or buffer.

HM Digital products are calibrated to specific points for the most common usages, depending upon the product. While factory calibration is suitable for most applications, there are many applications for which recalibration will be necessary to achieve improved accuracy. A meter should always be calibrated as close as possible to the level that will be tested. If testing a range with a single meter (such as RO water and tap water), the meter should be calibrated in the upper third of that range.

If calibrating a TDS meter, always ensure the EC-to-TDS conversion factor of the meter matches the calibration solution type.

What is pH?

pH (potential of hydrogen) is an indication of a substance's acid or alkaline properties.

The higher the pH, the more base it is, and the lower the pH, the more acidic it is.

A pH level of 7.0 is neutral.

